

the upper jaw (vs. lower jaw slightly longer), maxilla extending below up to middle of the orbit (vs. anterior margin of the orbit), caudal fin with upper lobe shorter (vs. upper lobe longer). Further, *B. nelsoni* is provided with a darkish longitudinal lateral band extending from behind the head to the base of caudal fin which is lacking in *B. evezardi*. The new species can also be separated from *B. radiolatus* by the fewer number of lateral line scales 38-39 (vs. 56-62), predorsal scales 14-16 (vs. 24-25) and circum-peduncular scales 12-14 (vs. 18).

The presence of symphysial knob on the lower jaw and general appearance of this species with the absence of the characteristic vertical bars so common in the genus *Barilius*, gives the species a close resemblance to the fishes of the genus *Rasbora* Bleeker, from which however it may be easily identified by the number of anal fin rays; while its distinctly rounded (not sharp edged) abdomen shows it

does not belong to *Chela* Hamilton.

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REFERENCES

- BARMAN, R.P. (1985): On a new cyprinid fish of the genus *Barilius* Hamilton (Pisces; Cyprinidae) from Arunachal Pradesh, India. *J. Bombay nat. Hist. Soc.*, 82 (1): 170-174.
- (1986): A new freshwater fish of the genus *Barilius* Hamilton (Pisces: Cyprinidae) from West Bengal, India. *ibid.* 83 (1): 171-173.
- DAY, F. (1889): The Fauna of British India, including Ceylon and Burma. Fishes 1: i-xx, 1-584. Taylor and Francis, London.
- Howes, G.S. (1980): The anatomy, phylogeny, classification of bariline cyprinid fishes. *Bull. Br. Mus. nat. Hist. (Zool.)* 37 (3): 129-198.
- JAYARAM, K.C. (1981): The Freshwater Fishes of India, Pakistan, Bangladesh, Burma and Sri Lanka - A handbook. Govt. of India, i-xxii, 1-475. pls. XIII.

A NEW FROG OF THE GENUS *PHILAUTUS* GISTEL, FROM THE PROPOSED NAMDAPHA BIOSPHERE RESERVE, ARUNACHAL PRADESH, NORTHEAST INDIA¹

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(With a text-figure)

During the study of a large collection from the proposed Namdapha Biosphere Reserve, we came across a new species of frog of the genus *Philautus* Gistel (Family Rhacophoridae), which is described here.

Philautus shyamrupus sp. nov. (Fig. 1)

Colour varying from grey to brown on the dorsum. A dorsolateral white band on either side, ex-

tending from posterior region of eyes and ending posteriorly near the vent. Limbs dark brown to grey. Eyes blackish; ventral surface dirty white. A dark, narrow line originating from the interorbital region, extends posteriorly to the hindmost part of the body.

Skin smooth above. Chest and belly smooth. Ventral surface almost smooth.

Head as long as broad; snout obtusely pointed, slightly longer than eyes; canthus rostralis distinct; nostrils closer to tip of snout than eyes; internarial distance less than interorbital space which is equal to diameter of eyes; tympanum distinct, two-third of diameter of eyes;

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TABLE I
BODY MEASUREMENTS IN MM OF FIVE SPECIMENS OF *Philautus shyamrupus* SP. NOV. FROM NAMDAPHA

	1	2	3	4	5
Length of head and body	25.0	22.0	22.0	19.5	19.5
Length of head	6.5	5.0	5.0	4.0	4.0
Width of head	6.5	5.0	5.0	4.0	4.0
Length of snout	4.5	4.0	4.0	3.5	3.5
Length of eye	3.5	3.0	3.0	2.5	2.5
Interorbital width	3.5	3.0	3.0	2.0	2.0
Diameter of tympanum	2.4	2.0	2.0	1.2	1.2
Length of forearm	16.5	16.0	16.0	14.0	14.0
Length of first finger	3.5	2.0	2.0	1.2	1.2
Length of second finger	4.0	3.5	3.5	2.5	2.5
Length of third finger	5.0	4.5	4.5	3.5	3.5
Hind limb	33.5	30.5	30.5	27.0	27.0
Length of tibia	12.5	11.0	11.0	9.4	9.3
Length of foot	9.0	7.5	7.5	6.0	6.0
Third toe	3.0	2.5	2.5	2.0	2.0
Fourth toe	4.5	4.0	4.0	3.0	3.0
Fifth toe	3.0	2.5	2.5	2.0	2.0

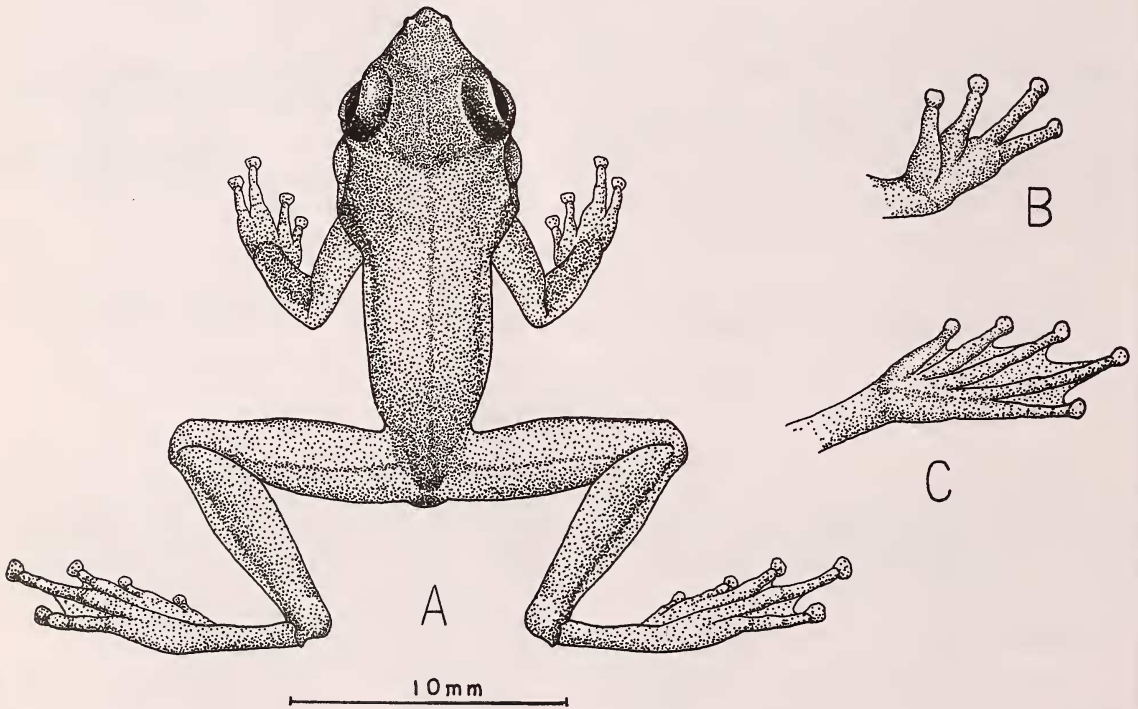


Fig. 1. *Philautus shyamrupus* sp. nov.
A. dorsal view of the body; B. ventral view of the hand; C. ventral view of the foot.

tongue free and deeply notched behind.

Forelimbs moderately long and slender; fingers free with prominent rounded tips; first finger shorter than second.

Hindlimbs fairly long; tibiotarsal articulation reaching nostrils; heels just meeting when hind limbs folded at right angles to body; tibia half the length from tip of snout to vent and three to four times as long as broad; fourth toe longest, longer than snout and with prominent discs; discs of toes broader than long; more than two-third webbed, two distal phalanges of fourth toe free; subarticular tubercles not prominent; both inner and outer metatarsal tubercles absent.

Measurements : See table 1.

Holotype : Adult female, Regd. Z.S.I. (K.Z. 313) collected from Hornbill, Namdapha Tiger Reserve and proposed Biosphere Reserve, Arunachal Pradesh; 13. xii. 1983, coll. S. Biswas.

Paratypes : Four adult males, Regd. Z.S.I. (K.Z. 314-317), collected from Hornbill, Namdapha Tiger Reserve and proposed Biosphere Reserve, Arunachal Pradesh, 13. xii. 1983, coll. S. Biswas.

The species is named after Dr. Shyamrup Biswas, who led the survey team to the area.

Comparisons: Eight species of the genus *Philautus* Gistel, have been described from north-east India, namely *Philautus argus* (Annandale), *P. annandalii* (Boulenger), *P. andersoni* (Ahl), *P. cherrapunjiae* (Roonwal & Kripalani), *P. garo* (Boulenger), *P. kempiae* (Boulenger), *P. nam-*

daphaensis (Sarkar & Sanyal), and *P. shillongensis* Pillai & Chanda. Of these, the present species appears close to *P. argus*, but can be distinguished from it in having toes that are not fully webbed; (fully webbed in *argus*); indistinct subarticular tubercles (subarticular tubercles distinct in *argus*) and head as long as broad (head longer than broad in *argus*). Moreover, when compared with all the species of the genus *Philautus* from the Indo-Australian Archipelago, the present species revealed some affinities with *P. aurifasciatus* (Schlegel), described from Java, but can be distinguished from it in having a much larger tympanum which is more than half the diameter of eye (one-third to nearly half in *aurifasciatus*), nostrils much closer to tip of snout than eyes (nostrils equidistant from eyes and tip of snout in *aurifasciatus*) and absence of inner metatarsal tubercle (inner metatarsal tubercle present in *aurifasciatus*). A combination of four characters, namely smooth skin, nearly fully webbed toes, indistinct subarticular tubercles and absence of both inner and outer metatarsal tubercles distinguishes *Philautus shyamrupus* from both *Philautus argus* and *Philautus aurifasciatus*.

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A NEW SPECIES OF *PINNOTHERES* LATREILLE (DECAPODA: BRACHYURA) FROM VISAKHAPATNAM COAST OF BAY OF BENGAL, ANDHRA PRADESH¹

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(With eight text-figures)

A new species of the genus *Pinnotheres* Latreille is described from Visakhapatnam. The new species *Pinnotheres hanumantharaoi* is related to *P. pectinicola* Burger. The differences between *P. pectinicola* Burger and *P. hanumantharaoi* are also given.

INTRODUCTION

The diagnostic characters of the genus *Pin-*

notheres Latreille were given by Miers (1886) and Alcock (1900). Burger (1895) described about 30 new species of *Pinnotheres* and gave a key. Later Rathbun (1910) examined the *Pinnotheres* of the Gulf of Siam and added 7 new species. Tesch (1918) enumerated 65 Indo-Pacific species of *Pinnotheres* inhabiting the mantle cavity of Lamellibranchs and

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